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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/453,908	04/12/2000	Johan Rune	040000-534	9160

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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER

NGUYEN, THUAN T

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 02/23/2005

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/453,908

Applicant(s)

RUNE ET AL.

Examiner

THUAN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 28-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 28-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Remarks

1. Claims 1-15 and 28-38 were elected for examination. Claims 16-27 were canceled. Please disregard the previous office action.

Claim Rejections - 35 USC 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-14 and 28-37 are rejected under 35 U.S.C. 102(e) as being anticipated by le et al. (U.S. Patent No. 6,556,820).

Regarding claim 1, Le discloses "in a wireless communications system, a method for indicating features not supported by visitor location registers comprising the steps of: sending, from a gateway location register to a home location register, a message including an indication of a feature not supported by a visitor location register for a subscriber; sending, to the gateway location register, another message including another indication of a feature not supported by another visitor location register for the subscriber; and determining, by the gateway location register, whether a feature is supported by the visitor location register which is not supported by the another visitor location register or whether a feature is supported by the another visitor

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location register which is not supported by the visitor location register”, i.e., the gateway location register 3G SGSN 814 simply checks whether any visitor location register (VLR) support the mobile station within the vicinity and messages are sent to the home location register whether a successful or a failure authentication, see Figs. 7-8, 13 & 16, and col. 9/line 29 to col. 10/line 15 & col. 13/line 29 to col. 14/line 26).

For claim 2, Le shows “the step of: sending, from the gateway location register to the home location register, a third message including a third indication, wherein the third indication implicitly indicates the feature supported by the visitor location register for the subscriber or the feature supported by the another visitor location register for the subscriber” (Fig. 8, MAP 862 for Mobility Application protocol for sending messages to HLR 860 for location updates of mobile subscribers with information obtained from MSC/VLR 812, see col. 10/lines 16-49).

For claim 3, Le suggests “wherein the another indication of a feature not supported is empty, thereby indicating that the another visitor location register supports all features for the subscriber”, if no prior record within the VLR, meaning empty, other VLR serves the mobile station (col. 9/lines 30-37).

For claim 4, Le shows “wherein the message including the indication of the feature not supported by the visitor location register is sent to the home location register during a location updating message exchange”, i.e., a failure result is provided if VLR does not support or entitle the service (col. 9/lines 30-44).

For claim 5, in view of claim 4, Le shows “wherein the location updating message exchange is initiated by the gateway location register sending a MAP-UPDATE-LOCATION message to the home location register” (col. 9/lines 30-35 for MAP-location update).

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For claim 6, in view of claim 2, Le shows “wherein the third message is sent to the home location register during a location updating message exchange” (col. 9/lines 30-35 for MAP-location update which sent to the HLR).

For claim 7, in view of claim 6, Le discloses “wherein the location updating message exchange is initiated by the gateway location register sending a MAP_UPDATE LOCATION message to the home location register” (col. 10/lines 23-35 as MSC/VLR 812 and 3G SGSN 814 may be implemented in a same physical network element, the MAP_location update is considered is from the gateway location register (& VLR) to the HLR, as noted in claims 5-6).

For claim 8, in view of claim 7, Le shows “wherein the third message is a MAP INSERT SUBSCRIBER DATA response confirmation message” (Fig. 7/item 722 and col. 9/lines 52-59).

For claim 9, in view of claim 2, Le suggests “wherein the third message is sent to the home location register during a fault restoration message exchange” (col. 9/lines 29-50 during the message exchange for service from the MSC/VLR with the HLR).

For claims 10 and 11, in view of claim 9, Le shows “wherein the fault restoration message exchange is initiated by the gateway location register sending a MAP-RESTORE-DATA message to the home location register” (Fig. 7/step 714 for a restore or refresh of location update) and “wherein the third message is a MAP INSERT SUBSCRIBER DATA response confirmation message” (Fig. 7/item 722 and acknowledge messages for confirmation).

For claims 12 and 13, in view of claim 2, Le discloses “wherein the third message is sent to the home location register in an information updating message” and “wherein the information updating message is a MAP-INFORMATION-UPDATE message” (col. 9/lines 29-51 & col.

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10/lines 36-49 as MAP 862 provides location updates as well as information updates for all administrative information of each registered subscriber in the network and the current location of the subscriber).

For claim 14, Le suggests “wherein the subscribes features is a feature selected from the group consisting of: a supplementary service; a regional subscription service; a bearer service; operator determined barring; supported CAMEL phases; or a teleservice” (col. 4/line 50 to col. 5/line 35 & col. 10/lines 36-49 for CAMEL).

(Claims 16-27 were canceled).

Regarding claims 28-37, these claims for “a wireless communications system which indicates features not supported by visitor location registers, the wireless communication system comprising: a gateway location register which sends a message including an indication of a feature not supported by a visitor location register for a subscriber to a home location register; and another visitor location register which sends to the gateway location register, another message including another indication of 2 feature not supported by another visitor location register for the subscriber, wherein the gateway location register, determines whether a feature is supported by the visitor location register which is not supported by the another visitor location register or whether a feature is supported by the another visitor location register which is not supported by the visitor location register” with same limitations addressed earlier are rejected for the reasons given in the scope of claims 1-14 as discussed in details above.

Claim Rejections - 35 USC 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 15 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le et al. (U.S. Patent No. 6,556,820 B1) in view of Rune (US Patent No. 6,212,390 B1).

Regarding claims 15 and 38, Le does not further mention the steps of “determining whether the visitor location register is located in an entirely restricted area or whether the another visitor location register is located in the entirely restricted area; and sending a third message including a third indication that the visitor location register or the another visitor location register is located in the entirely restricted area if it is determined that the visitor location register or the another visitor location register is located in the entirely restricted area”; however, Rune teaches the same technique as Rune’s system calculates and defines the restricted area and the system controller stores in its records or database for the restricted location areas, which also reported to the system for mobility management (col. 3/line 50 to col. 4/line 46, Fig. 5, and col. 7/line 45 to col. 8/line 46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Le’s system with Rune’s technique in defining restricted areas as disclosed in order to provide service and mobility management as whether a service provided by a VLR is available or not as preferred.

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Becher, Boltz, and Sanchez Herrero (in PTO 892 attached) disclose systems related to telecommunication systems with HLR, VLR and restrictions.

7. **Any response to this action should be mailed to:**

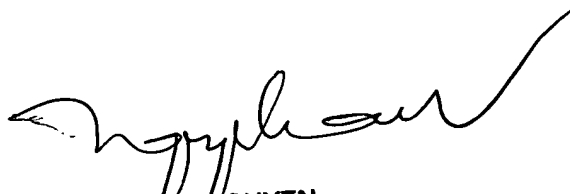
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Washington, D.C. 20231

or faxed to: (703) 872-9306, (for Technology Center 2600 only)

*Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (703) 308-5860. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.



TONY T. NGUYEN
PATENT EXAMINER

Tony T. Nguyen
Art Unit 2685
February 17, 2005